Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of the Claims

1. (Original) The use of a peptide comprising all or an immunogenic part of the amino acid sequence designated SEQ ID NO 6 in the manufacture of a vaccine to stimulate an anti-cancer immune response against COA-I (SEQ ID NO 2), wherein the immunogenic part of the sequence is processed and expressed by antigen presenting cells in association with sympathetic MHC class II molecules.

2. (Original) Use according to claim 1, wherein the inununogenic part of the sequence comprises 8 or more contiguous amino acid residues of SEQ ID NO 6.

3. (Original) Use according to claim 2, wherein the immunogenic part of the sequence comprises 10 or more contiguous amino acid residues of SEQ ID NO 6.

4. (Currently amended) Use according to ~~any preceding~~ claim 1, wherein the immunogenic part of the sequence comprises SEQ: ID NO[[.]]9 at the N-terminus and/or SEQ ID NO[[.]]10 at the C- terminus.

5. (Original) Use according to claim 1, wherein the immunogenic part of the sequence consists of SEQ ID NO 6.

6. (Currently amended) Use according to ~~any preceding~~ claim 1, wherein the immune response is stimulated against Colorectal Cancer cells.

7. (Currently amended) Use according to ~~any preceding~~ claim 1, wherein the peptide is an oligopeptide.

8. (Original) Use according to claim 1, wherein the MHC class II molecules are the HLA DRβ1*0402 and/or HLA DRβ1*1301 alleles.

9. (Currently amended) Use according to ~~any preceding~~ claim 1, wherein the vaccine further comprises PBMC's (Peripheral Blood Mononuclear Cells) either expressing the HLA DRβ1*0402 and/or HLA DRβ1*1301 alleles.

10 (Currently amended) Use according to ~~any of claim 1-8~~ claim 1, wherein the vaccine further comprises Dendritic ~~Cells~~ cells, pulsed with a peptide comprising all or an immunogenic part of the amino acid sequence designated SEQ ID NO 6 or transfected with polynucleotides encoding said peptide, the Dendritic cells either expressing the HLA DRβ1*0402 and/or HLA DRβI*1301 alleles.

11. (Currently amended) A vaccine comprising a peptide, as defined in ~~any preceding~~ claim 1.

12. (Original) A vaccine according to claim 11 comprising a suitable carrier.

13. (Currently amended) A vaccine according to ~~any of claims 11-12~~ claim 11, comprising the peptide and PBMC's expressing a sympathetic MHC Class II allele therefor.

14. (Original) A vaccine according to claim 13, wherein the MHC Class II allele is the HLA DRβ1*0402 and/or HLA DRβ1*1301 allele.

15. (Currently amended) A method for stimulating immunity in a patient against colorectal cancer, comprising stimulating the production of antibodies against a peptide, as defined in ~~any of claims 1-12~~ claim 1.

16. (Original) A method according to claim 15, wherein immunity is stimulated in the patient in conjunction with PBMC's allogeneic or autologous for at least one sympathetic

HLA.-II allele capable of presenting all or an immunogenic part of the amino acid sequence designated SEQ ID NO 6 in an immunogenic manner.

17. (Original) A method according to claim 16, wherein the allele is selected from HLA DRβ1*0402 and/or HLA DRβ1*1301.

18. (Currently amended) A method according to ~~any of claims 15-17~~ claim 15, wherein the patient has PBMC'S autologous or allogeneic for at least one sympathetic HLA-II allele capable of presenting the COA-1 epitope in an immunogenic manner, the method comprising administering a vaccine comprising the immunising portion of COA-1, or a precursor therefor, ~~as defined in any preceding claim,~~ to the patient.

19. (Currently amended) A method for stimulating immunity to colorectal cancer in a patient, said method comprising:
i) isolating PBMC's or their progenitors from the patient and transforming said cells with at least one sympathetic HLA-II allele capable of presenting the COA-1 epitope in an immunogenic manner,
ii) introducing the transformed PBMC's back into the patient, and
iii) administering a vaccine comprising the immunising portion of COA-1, or a precursor therefor, as defined in ~~any of claims 1 to 12~~ claim 1, to the patient.

20. (Original) A method according o claim 19, wherein the immunising portion of COA-1 or a precursor therefor, is administered with the transformed PBMC's.

21. (Currently amended) Use according to ~~any of claims 1-4~~ claim 1, wherein the immune response is stimulated against melanoma cells.